

WHAT IS CLAIMED IS:

1. A method for manufacturing an ink jet head by bonding with liquid-like adhesive a member at least having a discharge port for discharging ink, and a

5 substrate having energy generating elements to generate energy for discharging ink, comprising the steps of:

coating said liquid-like adhesive on said member or said substrate, said liquid-like adhesive containing at least ultraviolet curing cation polymeric starter and epoxy resin;

10 irradiating ultraviolet rays to said liquid-like adhesive to activate said ultraviolet curing cation polymeric starter;

positioning said member and said substrate without 15 heating process; and

heating in a state of said member and said substrate being positioned to cure said activated liquid-like adhesive.

20 2. A method for manufacturing an ink jet head according to Claim 1, wherein the thickness of said adhesive layer is 10  $\mu\text{m}$  or less.

25 3. A method for manufacturing an ink jet head according to Claim 1, wherein said ultraviolet curing cation polymeric starter is aromatic onium salt.

4. A method for manufacturing an ink jet head according to Claim 1, wherein said liquid-like adhesive contains agent for providing flexibility.

5 5. A method for manufacturing an ink jet head according to Claim 1, wherein said member and said substrate are formed by material having Si as the main component thereof.

10 6. A method for manufacturing an ink jet head according to Claim 1, wherein said ultraviolet rays are beams of wavelength of 380 nm or less.

15 7. A method for manufacturing an ink jet head according to Claim 1, wherein at least either one of said member and said substrate is formed by opaque material to the beam having wavelength of 380 nm or less.

20 8. A method for manufacturing an ink jet head by bonding with solid adhesive a member at least having a discharge port for discharging ink, and a substrate having energy generating elements to generate energy for discharging ink, comprising the steps of:

25 coating adhesive on said member or said substrate, said solid adhesive containing at least ultraviolet curing cation polymeric starter and epoxy resin;

irradiating ultraviolet rays to said liquid-like adhesive to activate said ultraviolet curing cation polymeric starter;

5 positioning said member and said substrate without heating process; and

heating said activated solid adhesive in a state of said member and said substrate being positioned to perform curing, while melting the solid adhesive.

10 9. A method for manufacturing an ink jet head according to Claim 8, wherein the melting point of epoxy resin of said solid adhesive is 50°C or more and 120°C or less.

15 10. A method for manufacturing an ink jet head by forming a complex structure having at least adhesive layer on polymeric film material, and bonding said structure with the substrate having electro- thermal converting elements formed therefor after forming more than one discharge port, ink flow path, and liquid chamber by performing laser processing to said complex structure, comprising the steps of:

20 laminating said adhesive layer containing at least ultraviolet curing cation polymeric starter and epoxy resin on the polymeric film material;

25 forming more than one discharge port by laser irradiation on said polymeric film material having said

adhesive layer laminated;

activating said ultraviolet curing cation polymeric starter by irradiating ultraviolet rays to said adhesive;

5 positioning said member and said substrate without heating process; and

heating in a state of said member and said substrate being positioned to cure said activated adhesive.

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11. A method for manufacturing an ink jet head according to Claim 10, wherein ink flow path and liquid chamber are also formed by said laser processing.

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12. A method for manufacturing an ink jet head by bonding with adhesive a member at least having a discharge port for discharging ink, and a substrate having energy generating elements to generate energy for discharging ink, comprising the steps of:

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producing a dry film of said adhesive containing at least ultraviolet curing cation polymeric starter and epoxy resin;

transferring said adhesive to said member or said substrate;

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activating said ultraviolet curing cation polymeric starter by irradiating ultraviolet rays to said adhesive;

positioning said member and said substrate without heating process; and

heating in a state of said member and said substrate being positioned to cure said activated adhesive.

13. An ink jet head manufactured by the method for manufacturing an ink jet head according to Claim 1.